# WEST VIRGINIA OFFICE OF MINERS' HEALTH, SAFETY AND TRAINING

### **REPORT OF FATALITY**

**MARCH 8, 2015** 

McELROY COAL CO.

McELROY MINE

PERMIT NO. U-00003383

REGION ONE

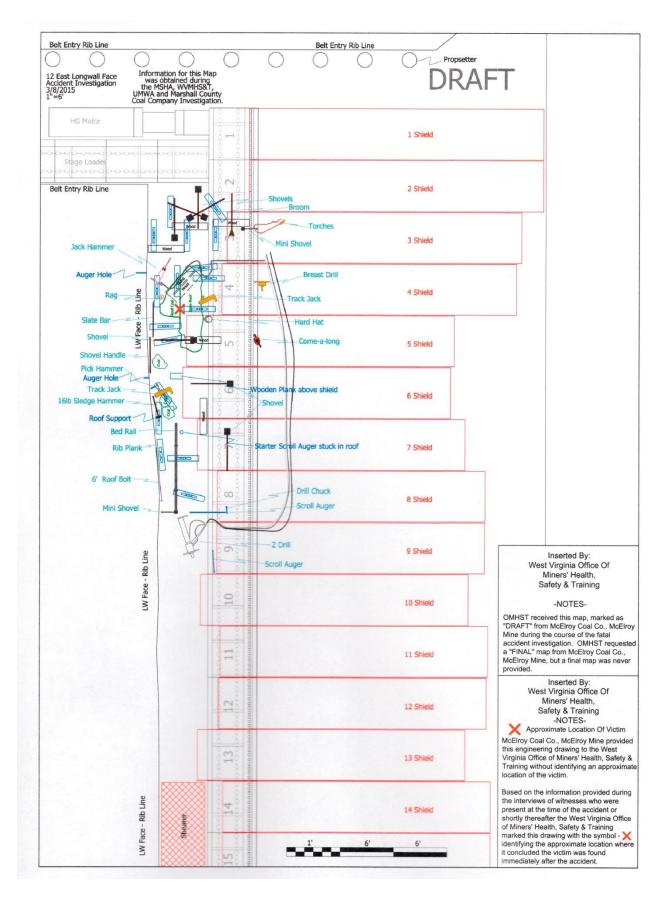
14 COMMERCE DRIVE, SUITE ONE

WESTOVER, WEST VIRGINIA 26501

EDWARD PEDDICORD, INSPECTOR-AT-LARGE

# TABLE OF CONTENTS

MAP	1
GENERAL INFORMATION	2
DESCRIPTION	2, 3, 4, 5
FINDINGS OF FACT	6, 7
CONCLUSION	7
ENFORCEMENT ACTION	8, 9
RECOMMENDATIONS	10
ACKNOWLEDGEMENT	10
VICTIM INFORMATION	11
MINE INFORMATION	12



#### **GENERAL INFORMATION**

The McElroy Coal Co., McElroy Mine, Permit No. U-00003383 is located near Moundsville, Marshall County, West Virginia. The underground mine employs approximately 1,146 miners. The Pittsburgh No. 8 seam is accessed by Blake Ridge, Cameron, Fish Creek, and Grapevine portals as well as slopes at the coal preparation plant and the Fish Creek portal. The mine produces approximately 10 million tons of coal annually from six (6) continuous miner units and two (2) longwall units. Coal is transported from the working sections in the mine via conveyor belt to the slope at the coal preparation plant. Battery, trolley and diesel powered vehicles are used to transport supplies and mine personnel.

#### **DESCRIPTION**

On March 8, 2015, at 9:19 p.m., the Mine and Industrial Accident Rapid Response System was notified that an accident had occurred at the McElroy Coal Co., McElroy Mine in Marshall County. West Virginia Mine Inspectors Collin Simmons, William Coen and Jeffrey Bennett were instructed by Edward Peddicord, Inspector-at-Large and John Meadows, Assistant Inspector-at-Large of the West Virginia Office of Miners' Health, Safety and Training to go directly to the McElroy Mine, Cameron Portal. A joint investigation with the Mine Safety and Health Administration, McElroy Coal Co., Murray American Energy Corporation, Murray Energy Corporation and the United Mine Workers of America began immediately.

On March 6, 2015, the 12 East Longwall section began mining out of the coal seam at the headgate end. Efforts were made to gradually reestablish the shearer into the coal seam and out of the roof rock/coal face. Operators attempted to lower the shearer drum in order to cut deeper into the coal seam, making extra cleanup attempts on cutouts and elongating the length of the slope from the headgate towards the tailgate to level out the panline, these attempts failed.

On March 7, 2015, at approximately 10:00 p.m., Nicholas Shanks, Assistant Longwall Coordinator, evaluated the conditions and realized they were making no progress mining back into the coal seam. The shearer was cutting into the roof rock/face approximately four (4) feet leaving approximately three and one-half (3.5) feet of coal seam. On March 8, 2015, at approximately 1:30 a.m., Mr. Shanks made the decision to cease production because the #2 shield was in contact with the headgate drive and was constrained by the height limitations of the belt entry, preventing advancement of the longwall face. Mr. Shanks made several phone calls to alert his supervisors of the situation. Mr. Shanks made arrangements with the midnight

shift foreman, on the morning of March 8, 2015, to have bolting supplies loaded and transported to the 12 East Longwall section.

On March 8, 2015, at approximately 6:30 a.m., Mr. Eric Koontz, General Superintendent and Mr. Eric Lipinski, Superintendent, arrived on the 12 East Longwall section. After a conversation with Mr. Shanks and after evaluating conditions, they decided to call Mr. Ronald Koontz, Longwall Director for Murray Energy Corporation. The decision was made to bolt the roof in the area between the face and the panline from the headgate towards the shearer. This would be a distance of approximately forty (40) feet in length (approximately eight (8) shields) and up to twelve (12) feet in width (shield canopy tip to the face). Bolting of the roof began at approximately 6:30 a.m. that morning. Mr. Ronald Koontz arrived on the 12 East Longwall section at approximately 8:40 a.m. Finalization of a plan was formulated and initiated to alleviate the existing condition.

The plan consisted of lowering the panline into the coal seam to establish normal floor conditions by extracting the coal in front and under the panline. Roof support would consist of installing six (6) foot roof bolts in conjunction with metal straps to facilitate miners' access to the face area. A hydraulically operated hand drill would be used to install the bolts. The shields would be utilized to relocate the panline towards the gob from the longwall face on the headgate end to increase face access, if necessary. After permanent supports were installed, a hydraulic breast drill would be used to drill holes in the coal seam (which is now the floor) between the face and the panline on the headgate end. These holes would then be loaded with explosives and detonated. The coal would be fragmented by a pneumatic jackhammer and placed on the panline by miners for removal. The conveyor belt and panline would be energized and operated, when necessary, to remove the coal. The intention was to remove enough coal in front and below the panline, push the panline over, thus lowering and tilting the panline. This would allow the leading edge of the drum of the shearer to cut down into the coal seam to begin the process of returning the face to normal floor conditions. The unwritten plan was communicated to the afternoon shift supervisors.

On March 8, 2015, at approximately 4:00 p.m., the 12 East Longwall afternoon shift crew consisting of John Beattie, Belt Man; Thomas Updegraff, Longwall Headgate Operator; Matthew Remke, Longwall Shield Man; Kenneth Torok, Center Bolter; Joshua Roth, Shuttle Car Operator; Michael Carp, Continuous Miner Rib Bolter; Colby Yarbrough, Continuous Miner Bolter; Charles Neitzelt, Longwall Shearer Operator; Chris Cox, Continuous Miner Rib Bolter; Jonathan Kirby, Longwall Utility; Joshua Kinney, Longwall Utility; Jonathan Blake, Continuous Miner Bolter and Richard Miller, Longwall Maintenance Foreman departed the Cameron portal and traveled to the longwall section. All were under the supervision of Brian Hennebert, Longwall Production Foreman, and Michael Kozak, Assistant Director of Longwalls for Murray Energy Corporation.

At the start of this shift, Mr. John Michael Garloch, Assistant Longwall Coordinator, went to the west side of the mine to ensure that longwall operations were satisfactory. He then travelled to the 12 East Longwall to assist in efforts to alleviate the out of coal seam condition. Mr. Garloch arrived on the 12 East Longwall section at approximately 8:00 p.m., mid-shift.

Mr. Neitzelt was located in front of the #4 shield between the panline and the face, operating the jackhammer, breaking the coal underneath the panline. Mr. Hennebert was located in front and to the tailgate side of Mr. Neitzelt to help position the jackhammer. Mr. Garloch was located between #4 and #5 shields, closer to the face on the tailgate side of Mr. Hennebert. Mr. Garloch was assisting Mr. Neitzelt by keeping the slack out of the pneumatic hose that was supplying air to the jackhammer. Mr. Roth was located near the #5 shield and to the tailgate side of Mr. Garloch shoveling coal onto the panline. These are approximate locations based on testimony and physical evidence.

At approximately 8:55 p.m., a loud noise was heard on the face when a large piece of rock/coal dislodged from the face. Mr. Neitzelt was struck by the rock/coal in the knees and back and was knocked underneath the panline. Mr. Hennebert was struck by the rock/coal in the back and legs and propelled forward underneath the panline. The fallen material covered him from the waist down. Mr. Roth was struck by the rock/coal in the shoulder, knocked under the panline, temporarily pinning his leg. Other miners in the vicinity immediately went to assist Mr. Hennebert and Mr. Neitzelt. Other miners dispersed to request assistance from miners working nearby, retrieving medical supplies, communicating with the surface and bringing the readily available vehicle with first aid supplies closer to the accident site.

Mr. Neitzelt was assisted off the face and taken to the end of the 12 East Longwall section track on the Damascus Corporation MAC-8 personnel carrier (used later to transport Mr. Garloch) and transported by a track-mounted mantrip to the Cameron bottom prior to Mr. Hennebert and Mr. Garloch. After arriving at the Cameron bottom, Mr. Neitzelt was placed on the waiting elevator previously secured by miners who were informed of the accident. Mr. Neitzelt arrived on the surface at the Cameron Portal and was placed in the care of Limestone EMS. Limestone EMS transported Mr. Neitzelt to the helipad where Stat Medevac of Pittsburgh, PA transported him to Ruby Memorial Hospital in Morgantown, WV where he was admitted. Mr. Roth, who stayed for informal interviews, did not know of the extent of his injuries until the following day when he sought medical attention. He was diagnosed with a fractured scapula.

While Mr. Neitzelt, Mr. Hennebert and Mr. Roth were being attended to at the accident site miners observed boots from an individual protruding from underneath the rock/coal. Miners knew it was Mr. Garloch because of where he was positioned prior to the accident. Miners tried to physically lift the rock/coal that was on top of Mr. Garloch but were unsuccessful. Miners then used a sledgehammer to break the coal from rock/coal while others went to get a

belt bed rail, lifting jacks and blocking materials to be used to raise the rock/coal. After the rock/coal was elevated, miners removed Mr. Garloch's mining belt to aid in pulling him from underneath the rock. Once he was extricated, Mr. Garloch was secured for transportation by placing him in a Stokes basket and carried to the last open crosscut between the belt and the track. At this time, an AED (Automated External Defibrillator) was placed on Mr. Garloch. A pulse was never detected. Mr. Garloch was transported on a battery powered, rubber tired Damascus Corporation MAC-8 personnel carrier to the end of the 12 East Longwall section track and carried to a track-mounted mantrip.

Mr. Hennebert was assisted off the face and taken to the end of the 12 East Longwall section track. Mr. Hennebert and Mr. Garloch were transported together in another track-mounted mantrip to the Cameron bottom. After arriving at the Cameron bottom, they were placed on the awaiting elevator. Mr. Hennebert and Mr. Garloch arrived on the surface at the Cameron Portal and were placed in the care of ambulance services that were on the scene. Mr. Hennebert was transported by Cameron EMS to Wheeling Hospital in Wheeling, WV.

Mr. Garloch was pronounced dead at 9:53 p.m. by Dr. Langley of Med Comm and was transported by Cameron EMS to Reynolds Memorial Hospital in Glen Dale, WV.

#### FINDINGS OF FACT

- 1. John Michael Garloch received annual refresher training on April 2, 2014.
- 2. Mr. Garloch was a Certified Mine Foreman (39840-11) and completed mine foreman continuing education requirements on October 1, 2013.
- 3. The panel length of the 12 East Longwall is approximately 6,848 feet.
- 4. The total width of the 12 East Longwall is approximately 1,400 feet.
- 5. The height from the mine floor to the mine roof between #5 and #6 shields measured one-hundred and twenty-nine (129) inches.
- 6. The distance from the mine bottom to where the coal and rock intersect (in the face) at #6 shield measured seventy-six (76) inches.
- 7. Approximately fifty-three (53) inches of roof rock was being mined.
- 8. There were no geologic anomalies observed in the area where the accident occurred.
- 9. The shearer, model 7LS, is manufactured by Joy and weighs 61 tons.
- 10. The face location at the time of the accident was 29+48 on the headgate and 29+10 on the tailgate.
- 11. Mining out of the coal seam on the longwall at McElroy Mine has occurred previously.
- 12. Production was ceased on the 12 East Longwall section at approximately 1:30 a.m. on March 8, 2015 due to the inability to advance the headgate drive due to mining height constrictions.
- 13. A large piece of rock/coal fell from the longwall face and struck Mr. Garloch. The piece of rock/coal measured approximately twelve (12) feet long by five (5) feet wide by one (1) foot thick.
- 14. There were numerous personnel working between the face and the panline while the conveyor was energized and operated to remove the material shoveled onto the panline.
- 15. Page twenty-nine (29), part three (3) of the adopted approved roof control plan was recorded in the on-shift examination for the 12 East Longwall section as being reviewed for the 12 East Longwall day shift personnel at 8:50 a.m. on March 8, 2015. Page twenty-nine (29), part ten (10) of the adopted approved roof control plan was recorded in the on-shift examination for the 12 East Longwall section as being reviewed for the 12 East Longwall section afternoon shift personnel at 4:50 p.m. on March 8, 2015. Neither section is relevant to the type of roof control to be pursued in securing the roof for the respective shifts.
- 16. The bolts used to permanently support the roof were a seven-eighths (7/8) by seventy-two (72) inch 'Install 3' one piece resin assisted point anchor bolt. It is rated

- as a twenty (20) ton system when used in conjunction with two (2) foot equivalent resin. Torque readings, as specified, must fall between a torque range of one-hundred fifty (150) and three hundred (300) foot-pounds.
- 17. A total of sixteen (16) resin assisted point anchor bolts were installed in the mine roof on the headgate end for miners to access the face area.
- 18. A torque wrench was not used nor found at the accident site.
- 19. Safety jacks, posts or other approved devices were not used nor found at the accident site.
- 20. A permit to use instantaneous detonators for shooting bottom with the maximum number of shots not to exceed ten (10) approved on May 16, 1988 was permitted for "IN ROCK ONLY".
- 21. Twisted empty rock dust bags were used to stem the drill holes.
- 22. A total of thirty-one (31) drill holes were shot in the coal bottom on the 12 East Longwall section in front of and under the panline.
- 23. During the investigation, a hole drilled into the face at the #4 shield was observed. Its depth was measured to be thirty-two (32) inches. The face in the location where the drill hole at #4 shield was not found by the persons firing the shots in their careful examinations of the working face after the shots were fired.
- 24. The first aid kit was stored on the Damascus Corporation MAC-8 personnel carrier which was located just inby the section power center which was further than one hundred and fifty (150) feet from the longwall face. The first aid kit was located approximately four hundred fifty (450) feet from the longwall face.

#### CONCLUSION

Mr. Garloch was fatally injured when he was assisting in efforts in lowering the panline on the 12 East Longwall section on March 8, 2015, at approximately 8:55 p.m. The victim was positioned between the face and panline between #4 and #5 shields. While this work was being performed a large piece of rock/coal dislodged from the unsupported face, striking and pinning the victim causing fatal injuries. Three other miners were injured by this same rock that resulted in lost time accidents.

#### **ENFORCEMENT ACTION**

A non-assessed order was issued in accordance with West Virginia Code Chapter 22A, Article 2 Section 68 to preserve evidence until an investigation by the Office of Miners` Health, Safety and Training is completed.

- 1) 36-10-3.1: The roof, face and ribs of areas where persons work or travel shall be supported or otherwise controlled to protect persons from hazards related to falls of the roof, face, or ribs and coal or rock bursts was not complied with on the 12 East Longwall section. During the investigation that was conducted after a fatal accident, Mr. John Michael Garloch was fatally injured and three other employees received lost time injuries while working on the 12 East Longwall Section as they were struck by an approximately twelve (12) feet long by five (5) feet wide by one (1) foot thick piece of rock/coal that fell from the longwall face which measured approximately eleven (11) feet in height. A one (1) inch drillhole was detected in the face in the rib/face area where the fatality occurred measuring thirty two (32) inches in depth as an apparent attempt was made to support the rib but was not completed.
- 2) 22A-2-25(f): The immediate supervisor of each miner who will be engaged in any activity involving the securing of the roof or rib during a shift shall, at the onset of any such shift, orally review those parts of the roof control plan relevant to the type of mining and roof control to be pursued by such miner and the time and parts of the plan reviewed shall be recorded in a log book kept for such purpose was not complied with on the 12 East Longwall section. Roof bolters were securing the roof by installing six (6) foot resin assisted point anchor bolts. On day shift, March 8, 2015, page 29, part 3, pertaining to shield prop pressure and on afternoon shift, page 29, part 10, pertaining to not riding the face conveyor were recorded in a book for such purpose. Neither section is relevant to the type of roof control to be pursued in securing the roof for the respective shifts.
- 3) 36-10-5.6(4): In each bolting cycle, the actual torque or tension of the first tensioned roof bolt installed with each drill head shall be measured immediately after it is installed and thereafter at least one (1) roof bolt out of four (4) installed shall be measured for actual torque or tension was not complied with on the 12 East Longwall section. During the investigation that was conducted after a fatal accident, sixteen (16) tensioned roof bolts were installed in the mine roof at the accident location where miners were working. No torque readings for actual torque or tension for the first bolt installed and every fourth bolt thereafter were determined as a torque wrench was not used or made available.
- 4) <u>36-6-7.6</u>: During the investigation that was conducted after a fatal accident, miners were working between the face and the panline performing various jobs which included

- shoveling material onto the panline. At intermittent times, the 12 East Longwall section belt and face conveyor would be energized and operated to remove this material as workers remained between the face and the panline.
- 5) 22A-2-25(b): Safety jacks, posts or other approved devices shall be used to protect the workmen when roof material is being taken down, crossbars are being installed, roof bolt holes are being drilled, roof bolts are being installed and in such other circumstances as may be appropriate was not complied with on the 12 East Longwall section face. During the investigation that was conducted after a fatal accident, roof bolters were drilling six (6) foot holes and installing six (6) foot resin assisted point anchor bolts. Safety posts, jacks or other approved devices were not being used or made available to protect workmen as required. At certain locations where roof supports were being installed, the distance from the shield canopy tip to the face, when measured, was in excess of eleven (11) feet.
- 6) 22A-2-33(b): Multiple shooting in coal or rock or both is authorized only under permit issued by the Director was not complied with on the 12 East Longwall section. The shearer had mined into the roof rock and left approximately three and one-half feet of coal bottom on the headgate end of the face. Thirty one (31) bottom holes were drilled and detonated in the coal bottom at this location. The approved permit for shooting in bottom dated May 16, 1988 applies to "In Rock Only".
- 7) 22A-2-33(a): Drillholes shall be stemmed with at least twenty-four (24) inches of incombustible material, or at least one half the length of the hole shall be stemmed if the hole is less than four (4) feet in depth was not complied with on the 12 East Longwall section. During the investigation that was conducted after a fatal accident, it was revealed that thirty-one (31) drillholes that were detonated in the coal bottom on the longwall face were stemmed with twisted empty rock dust bags.
- 8) 36-6-12.1: First aid equipment required on each working section as defined in Chapter 22A, Article 2, Section 59 of the West Virginia Code shall be maintained in the headgate and tailgate entries at a point not to exceed one hundred-fifty (150) feet outby the longwall working face was not complied with on the 12 East Longwall section. During the investigation that was conducted after a fatal accident, the first aid equipment was being stored on the battery-powered Damascus Corporation MAC-8 personnel carrier located just inby the section power center, a distance in excess of one-hundred fifty (150) feet. The first aid supplies were located approximately four hundred fifty (450) feet from the longwall face.

#### RECOMMENDATIONS

McElroy Coal Co. submitted a letter dated March 12, 2015, modifying an order issued as a result of a fatality at the McElroy mine. This letter was a request for a revision to the roof control plan. "Safety Precautions for Out of Seam Conditions" was approved and added to their plan.

## Safety Precautions for Out of Seam Conditions

When mining out of seam conditions are present, the hazards and safety precautions for working on the longwall face with these conditions will be reviewed with all individuals working in the affected area. Measures to begin mining back in seam will then be initiated.

If individuals are required to be on the face side of the panline:

a. Temporary floor to roof and face supports will be installed sequentially on a maximum of five (5) foot centers in the affected area.

If individuals are required to be on the face side of the panline to perform work the following stipulations will be applied:

- a. Temporary floor to roof and face supports will be installed sequentially on a maximum of five (5) foot centers.
- b. If the shield tip to the face exceeds five (5) feet, the roof will be supported with an approved roof bolt (minimum six (6) foot length) installed on maximum five (5) foot centers. (Refer to pages 6 through 8 for additional guidance.)
- c. The longwall face will be supported with a bolt (fiberglass or metal, a minimum four (4) foot in length) installed on maximum five (5) foot centers. (Refer to pages 6 through 8 for additional guidance.)
- d. These supports will be installed from under supported roof and must extend a minimum of two (2) rows (ten (10) feet) past the work area.

#### **ACKNOWLEDGEMENT**

The West Virginia Office of Miners' Health, Safety and Training gratefully acknowledges the cooperation of the management and employees of McElroy Coal Co., McElroy Mine, Murray American Energy Corporation, Murray Energy Corporation, the Mine Safety and Health Administration, and the United Mine Workers of America during this investigation.

# MINE INFORMATION

COMPANY McElroy Coal Co.
MINE COMPANY <u>McElroy Mine</u>
WV PERMIT <u>U-00003383</u> MSHA PERMIT NO. <u>46-01437</u>
ADDRESS 57 Goshorn Woods Rd. Cameron, WV 26033
COUNTY Marshall PHONE NO. 304-686-4300
DATE PERMIT ISSUED <u>October 20, 1969</u>
WORKING STATUS <u>Active</u>
LOCATION Cameron Portal
UNION X NON-UNION
DAILY PRODUCTION <u>36,197 tons</u> ANNUAL PRODUCTION TO DATE <u>2,352,817 tons</u>
TOTAL EMPLOYEES 1,146
NUMBER OF SHIFTS 3
COAL SEAM NAME AND THICKNESS <u>Pittsburgh 8</u> 60 inches
ACCIDENT INCIDENT RATE 6.09 LOST TIME ACCIDENTS 11 YTD
TYPE OF HAULAGE Belts
WVOMHST INSPECTORS Colin Simmons and William Coen
DATE OF LAST INSPECTION Regular inspection completed on December 30, 2014
NOTIFIED BY Mine and Industrial Accident Emergency Operations Center
NOTIFICATION TIME March 8, 2015 at 9:19 p.m.
CMSP-ANNIVERSARY DATE <u>February 12, 2016</u>
CMSP-CONTACT PERSON Rich Marcavich